REMARKS/ARGUMENTS

Claims 1-9 and 11-12 are pending, claim 10 having been canceled, without prejudice or disclaimer, as being substantially redundant to amended independent claim 1.

Correction to the abstract was required. In compliance therewith, a replacement abstract is enclosed.

Claims 1-6, 8, 9, and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Bourquin et al., U.S. Patent No. 6,469,489 in view of Isoda, U.S. Patent No. 3,928,760. Reconsideration of the rejection is respectfully requested.

Claim 7 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bourquin et al., in view of Isoda and further in view of Kuhara et al., U.S. Patent No. 5,787,215. Reconsideration of the rejection is respectfully requested.

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bourquin et al., in view of Isoda and further in view of Jackson, U.S. Patent No. 5,714,909. Reconsideration of the rejection is respectfully requested.

Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Bourquin et al., in view of Isoda and further in view of Murata et al., U.S. Patent No. 5,243,182. Reconsideration of the rejection is respectfully requested.

Independent claim 1 has been amended to provide, in part, for, "a processor connected to the light sensor and the electric filter for processing the wanted signal in order to generate an output signal, the processor comprising an amplifier and a feedback resistor, a photocurrent, corresponding essentially to the wanted signal, flowing through the feedback resistor, the resistance of the feedback resistor being selected to prevent a saturation of the amplifier, and being higher than the resistance of the feedback resistor, selected to prevent a saturation of the amplifier, in the event that a photocurrent, corresponding to the wanted signal and the interfering signal, flows through the feedback resistor, the higher resistance of the feedback resistor lowering the noise produced by the feedback resistor when compared to the noise produced by the feedback resistor, in the event that the photocurrent, corresponding to the wanted signal and the interfering signal, flows through the feedback resistor."

Antecedent basis for the amendments to independent claim 1 is found in the specification, for example, in paragraph [0016] on pages 5-6, and in paragraph [0025] on pages 8-9.

With regard to Bourquin et al., the Examiner admits that Bourquin et al. fails to teach an optical filter for reducing the interfering light, (Office Action, page 3, paragraph 4, lines 16-17), and that Bourquin et al. fails to teach a feedback resistor with a high resistance, (Office Action, page 6, paragraph 6, lines 5-7).

With regard to Isoda, the Examiner also admits that it fails to teach a feedback resistor with a high resistance, (Office Action, page 6, paragraph 6, lines 5-7).

With regard to Jackson, although the Examiner alleges that it teaches a processor comprising an amplifier and feedback resistor with a high resistance, the Examiner merely cites Figs. 1-4 and from column 3, line 1, to column 9, line 9 in Jackson, (Office Action, page 6, paragraph 6, lines 8-10). Although Fig. 2 appears to disclose amplifier 32 and resistors 28, 34, and Fig. 4 appears to disclose amplifier 68 and resistors 66 and 70, there appears to be no disclosure, teaching, or suggestion that resistors 28, 34, 66, and 70 have a high resistance value or that they act in noise reduction. On the contrary, it appears that resistor 28 is connected to the drain of P-channel transistor 26 and to the source of P-channel transistor 30, (column 4, lines 18-20), resistor 34 acts to set the gain for Op-amp 32 acting as a transimpedance amplifier, (column 5, lines 7-8), and resistor 70 sets the transimpedance gain for a second stage 56, (column 8, lines 5-6). Noise cancellation is mentioned with regard to feedback stage 18, (column 5, lines 43-67), and with respect to the feedback stage 58, (column 8, lines 48-56), but feedback stage 18 and feedback stage 58 contain no resistors, (see Figs. 2 and 4).

Jackson nowhere appears to teach, disclose, or suggest the higher resistance of the feedback resistor selected to prevent a saturation of the amplifier, when the feedback resistor is carrying a photocurrent, corresponding essentially to the wanted signal, compared to the resistance of the feedback resistor, selected to prevent a saturation of the amplifier, in the event that the feedback resistor is carrying a photocurrent, corresponding to the wanted signal and the interfering signal, the higher resistance of the feedback resistor lowering the noise produced by the feedback resistor when compared to the noise produced by the feedback resistor in the event

that a photocurrent, corresponding to the wanted signal and the interfering signal, flows through the feedback resistor, as claimed in independent claim 1.

With regard to Kuhara et al., it nowhere appears to teach, disclose, or suggest the lowering of the noise produced by a feedback resistor, by increasing the resistance of the feedback resistor, as claimed in independent claim 1.

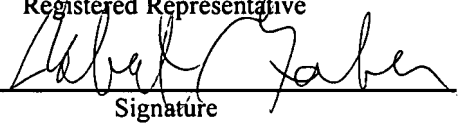
With regard to Murata et al., although it appears to disclose a photoelectric proximity switch including a light receiver, as alleged by the Examiner, (Office Action, page 7, lines 6-8), there appears to be no teaching, disclosure, or suggestion therein of the lowering of the noise produced by a feedback resistor, by increasing the resistance of the feedback resistor, as claimed in independent claim 1.

Since each of claims 2-9 and 11-12 is directly or indirectly dependent upon independent claim 1, each of claims 2-9 and 11-12 is allowable over the applied references for the same reasons recited above with respect to the allowability of independent claim 1 over the applied references.

In view of the foregoing amendments and remarks, allowance of claims 1-9 and 11-12 is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 22, 2007:

Robert C. Faber
Name of applicant, assignee or Registered Representative



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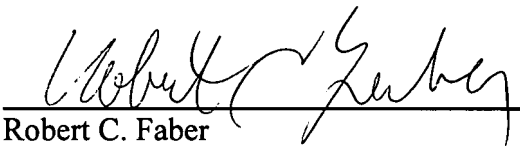
Respectfully submitted,



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